

CLAIMS

What is claimed is:

1. An air conditioner, comprising:

a cabinet to define an appearance of the air conditioner, a part of the cabinet located indoors, and a remaining part of the cabinet located outdoors;

a partition plate provided in the cabinet to partition an internal space of the cabinet into an indoor space part to circulate indoor air, and an outdoor space part to circulate outdoor air;

an air inlet port and an air outlet port provided on the part of the cabinet that is located indoors, to draw and discharge the indoor air into and from the cabinet, respectively;

an evaporator disposed in the cabinet adjacent to the air inlet port;

a fan to draw the indoor air into the cabinet through the air inlet port such that the indoor air passes through the evaporator to be cooled, prior to being discharged to an outside of the cabinet through the air outlet port;

an air guide duct to guide the indoor air which is drawn into the cabinet, the fan being disposed in the air guide duct; and

an air discharging duct, engaging the partition plate, positioned adjacent to the air guide duct and guiding the indoor air from the air guide duct to the air outlet port.

2. The air conditioner according to claim 1, further comprising:

a support rib provided on the partition plate to engage the air discharging duct with the partition plate,

wherein the air discharging duct has a support hole engaging the support rib of the partition plate.

3. The air conditioner according to claim 2, wherein the air discharging duct comprises:

a support block projecting from the air discharging duct,

wherein the support hole is provided on the support block.

4. The air conditioner according to claim 3, wherein:

the support block has a curved surface to reduce a vortex of the indoor air.

5. The air conditioner according to claim 3, wherein:

the support rib of the partition plate has a curved surface to reduce a vortex of the indoor air.

6. The air conditioner according to claim 2, wherein:

the support rib and the support hole comprise a plurality of parallel support ribs and a plurality of parallel support holes, respectively.

7. The air conditioner according to claim 2, wherein:

the support rib and the support hole comprise a plurality of support ribs and a plurality of support holes, respectively, such that at least one of the plurality of support ribs and at least one of the plurality of corresponding support holes are inclined toward a first sidewall of the cabinet, and at least one of the plurality of support ribs and at least one of the plurality of corresponding support holes are inclined toward a second sidewall of the cabinet which is opposite to the first sidewall.

8. An air conditioner, including inlet and outlet ports, the air conditioner comprising:

an evaporator;

a partition plate;

an air duct guide, guiding air drawn from the inlet port past the evaporator; and

an air discharging duct, engaging the partition plate to prevent movement during assembly, and guiding the air from the air duct guide to the outlet port.

9. The air conditioner according to claim 8, wherein:

the air discharging duct engages the partition plate without separate fasteners.

10. The air conditioner according to claim 8, wherein:

the air discharging duct has a support hole; and

the partition plate comprises a support rib corresponding to the support hole to engage the air discharging duct.

11. The air conditioner according to claim 8, wherein the air discharging duct further comprises:

a support block to strengthen the air discharging duct.

12. The air conditioner according to claim 10, wherein the air discharging duct further comprises:

a support block to strengthen the air discharging duct,
wherein the support hole is disposed on the support block.

13. The air conditioner according to claim 12, wherein:

the support block and the support rib are curved to reduce a vortex of the air.

14. The air conditioner according to claim 10, wherein:

the support hole is a plurality of support holes; and

the support rib is a plurality of support ribs corresponding to the support holes.

15. The air conditioner according to claim 14, wherein:

the plurality of support ribs are disposed parallel to each other.

16. The air conditioner according to claim 14, wherein:

at least one of the plurality of support holes and at least one of the plurality of support ribs are oriented in a first direction different from a second direction in which at least another one of the plurality of support holes and at least another one of the plurality of support ribs are oriented.

17. The air conditioner according to claim 14, wherein:

at least one of the plurality of support holes and at least one of the plurality of support ribs are oriented in a first direction; and

at least one of the plurality of support holes and at least one of the plurality of support ribs are oriented in a second direction opposite the first direction.

18. An apparatus, comprising:

a cabinet having inlet and outlet ports;

a partition plate partitioning the cabinet
an evaporator;
an air duct guide guiding air drawn from the inlet port past the evaporator; and
an air discharging duct, engaged to the partition plate to prevent movement during assembly and operation, and guiding air from the air duct guide to the outlet port.

19. A manufacturing method for an air conditioner, comprising:
 - installing an evaporator for an air conditioner on a lower panel;
 - installing an air duct guide adjacent to the evaporator, to guide air drawn from an inlet port past the evaporator;
 - installing a partition plate with a support rib adjacent to the air duct guide, to partition a cabinet of the air conditioner;
 - installing an air discharging duct adjacent to the air duct guide and the partition plate, to guide the air from the air duct guide to an outlet port, the air discharging duct having a support recess corresponding to and engaging the support rib to secure the air duct guide to the partition plate.